What is claimed is:

1. A method for weighting orthogonal frequency division multiplexed soft symbols, said method comprising the steps of:

receiving a plurality of sub-carriers modulated by digital information;

filtering the sub-carriers to produce complex soft decision outputs;

creating a first sequence of the magnitudes of said complex soft decision outputs;

determining the differences between successive samples in said first sequence;

creating a second sequence of the differences between successive samples in said first sequence;

using said first and second sequences to determine a plurality of weights; and

applying said plurality of weights to said complex soft decision outputs.

2. The method of claim 1, wherein said sub-carriers are modulated using quadrature phase shift keying.

3. A radio receiver comprising:

an input for receiving a plurality of sub-carriers modulated by digital information;

a filter for filtering the sub-carriers to produce complex soft decision outputs; and

a signal processor for creating a first sequence of the magnitudes of said complex soft decision outputs, for determining the differences between successive samples in said first sequence, for creating a second sequence of the differences between successive samples in said first sequence, for using said first and second sequences to determine a plurality of weights, and for applying said plurality of weights to said complex soft decision outputs.

4. The receiver of claim 3, wherein said sub-carriers are modulated using quadrature phase shift keying.

5. The receiver of claim 3, wherein said signal processor filters said first and second sequences to produce third and fourth sequences of magnitudes.

6. The receiver of claim 5, wherein:

said third sequence has a time constant smaller than the reciprocal of the fading bandwidth of the plurality of sub-carriers; and

said fourth sequence has a time constant larger than the reciprocal of the fading bandwidth of the plurality of sub-carriers.

7. The receiver of claim 5, wherein the signal processor compensates for differences in effective group delay of said first and second sequences to produce the third and fourth sequences.

8. The receiver of claim 5, wherein said plurality of weights are determined using the formula:

$$w_{k,n} = \frac{1}{filtd_{k,n} \cdot \left(1 + \left(\frac{filtd_{k,n}}{filtv_{k,n} - filtd_{k,n}}\right)^4\right)}$$

wherein $w_{k,n}$ represents said plurality of weights, $filtv_{k,n}$ represents said third sequence, and $filtd_{k,n}$ represents said fourth sequence, k identifies one of said symbols, and n identifies one of the said sub-carriers.

9. The receiver of claim 8, wherein if $filtv_{k,n} > 1.5 \bullet filtd_{k,n}$, then $w_{k,n}$ is set to zero.